

WASHINGTON STATE DEPARTMENT OF ECOLOGY EASTERN REGIONAL OFFICE 4601 NORTH MONROE SPOKANE, WASHINGTON 99205-1295

# FINAL STATEMENT OF BASIS FOR

AIR OPERATING PERMIT NUMBER 04AQ-E104, 2<sup>nd</sup> Revision WALTERS POWER INVESTORS, LLC – MOSES LAKE GENERATING FACILITY IN GRANT COUNTY, WASHINGTON

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#### LIST OF ABBREVIATIONS

acfm Actual cubic feet per minute

AOP Air Operating Permit

BAAQMD Bay Area Air Quality Management District

BACT Best Available Control Technology

bhp Brake horsepower
BTU British Thermal Units
°C Degrees Celsius

CAM Compliance Assurance Monitoring

CFR Code of Federal Regulations

CO Carbon Monoxide

dscfm Dry standard cubic feet per minute

Ecology Washington State Department of Ecology

E.I.T. Engineer in Training

EPA United States Environmental Protection Agency

°F Degrees Fahrenheit FCAA Federal Clean Air Act

ft<sup>3</sup> Cubic foot

gr/dscf Grain per dry standard cubic foot

hr Hour

MMBTU Million British Thermal Units

MRRR Monitoring, Recordkeeping, and Reporting Requirement

MVAC Motor Vehicle Air Conditioner

N<sub>2</sub> Nitrogen gas

NOC Notice of Construction NO<sub>x</sub> Oxides of nitrogen

NSPS New Source Performance Standard

O<sub>2</sub> Oxygen

O&M Operation & Maintenance
P.E. Professional Engineer
PM Particulate Matter

PM-10 Particulate Matter with aerodynamic diameter ≤ 10 micrometers

ppm Parts per million

ppmdv Parts per million on a dry, volume basis RACT Reasonably Available Control Technology

RCW Revised Code of Washington

RM EPA Reference Method from 40 CFR Part 60, Appendix A

RMP Risk Management Plan as required by 40 CFR 68

scfm Standard cubic feet per minute SCR Selective Catalytic Reduction SIP State Implementation Plan

SO<sub>2</sub> Sulfur dioxide TAP Toxic Air Pollutant TPY Tons per year

VOC Volatile Organic Compound WAC Washington Administrative Code

yr Year

Table 1 – Mitsubishi Bi-Fuel Electric Generators – Potential to Emit in Tons per Year (tpy)<sup>1</sup>

| Emission Units        | PM-10 | CO    | $NO_X$ | $SO_2$ | VOC  |
|-----------------------|-------|-------|--------|--------|------|
| S16R-PTA (per unit)   | 3.40  | 5.87  | 7.96   | 1.52   | 0.77 |
| S16R-PTA2 (per unit)  | 3.74  | 6.44  | 8.79   | 1.67   | 0.87 |
| S16R-PTAA2 (per unit) | 4.50  | 6.99  | 8.31   | 2.02   | 1.05 |
| S12R-PTA2 (per unit)  | 2.80  | 4.82  | 5.82   | 1.25   | 0.65 |
| S12R-PTAA2 (per unit) | 3.30  | 5.12  | 6.07   | 1.47   | 0.75 |
| Overall Site Total    | 108.5 | 177.5 | 236.06 | 48.6   | 25.1 |
| (20 Generators)       |       |       |        |        |      |

#### 1.0 Introduction

This document sets forth the legal and factual basis for the permit conditions in a FINAL Revised AOP issued by the State of Washington Department of Ecology for a bi-fuel electricity generating substation located near the town of Moses Lake, Washington in Grant County. This document is called a "statement of basis" and is required by Washington State regulations [chapter 173-401 WAC]. A statement of basis does not contain enforceable permit conditions. Enforceable permit conditions are contained in the AOP itself.

## 2.0 Facility Identifying Information

## 3.0 Basis for Title V Applicability

Moses Lake Generating, LLC, Moses Lake Generating Facility, is subject to Title V, Air Operating Permit Regulations, due to potential emissions of oxides of nitrogen ( $NO_X$ ), carbon monoxide (CO), and fine particulate matter (PM-10) in excess of 100 tons per year. WAC 173-401-200(17)(b) identifies any source that directly emits or has the potential to emit one hundred tpy or more of any air pollutant as a major source. Major sources are required to obtain Title V permits under 173-401-300(1)(a)(i).

#### 4.0 Attainment Classification

The facility is located in an area that is classified as attainment for all criteria pollutants as of November 2004.

#### 5.0 Title V Facility Timeline

- 5.1 June 26, 2003 ------Original AOP Application Determined to be Complete
- 5.2 December 10, 2003 ----- Original Draft AOP Issued

<sup>&</sup>lt;sup>1</sup> Per Order No. 03AQER-5296 Table 4.0 – Hourly PTE values multiplied by allowable hours of operation and converted to tons.

| 5.3        | March 29, 2004    | Final Permit Issued (Order No. 04AQ-E104)                           |
|------------|-------------------|---|
| 5.4        | April 1, 2004     | Order No. 04AQ-E104 Effective Date                                  |
| 5.5        | April 9, 2004     | EPA Promulgates changes to 40 CFR 68 in Federal Register            |
| 5.6        | July 29, 2004     | Ecology Administrative Order No. 1580 Issued (Settlement Agreement) |
| <b>5.7</b> | October 4, 2004   | Draft Order No. 04AQ-E104 1st Revision Issued                       |
| <b>5.8</b> | October 10, 2004  | Public Comment Period Begins  |
| 5.9        | November 9, 2004  | Public Comment Period Ends  |
| 5.10       | November 18, 2004 | EPA Review Period Begins  |
| 5.11       | January 1, 2005   | EPA Review Period Ends  |
| 5.12       | February 15, 2005 | Final Order No. 04AQ-E104, 1st Revision Issued                      |
| 5.13       | June 6, 2006      | Final Order No. 04AQ-E104, 2 <sup>nd</sup> Revision Issued          |
| 5.14       | April 1, 2009     | Order No. 04AQ-E104, 2 <sup>nd</sup> Revision Expiration Date       |

## 6.0 Facility Description

The Moses Lake Generation Facility consists of twenty-nine (29) bi-fuel (diesel fuel oil & natural gas) electric generators with a combined capacity of 50.28 megawatts. It is located in Grant County, near Moses Lake, in the Maiers Industrial Park in Farm Unit 77, Irrigation Block 41, Columbia Basin Project, and within the SW ¼ section of Section 17, Township 19 North, Range 29 East of the West Meridian. Appendix A includes a site plan which shows the layout of the units at the substation, the access roads, office, and the ammonia storage tanks, a general project location map, and a map showing facility location and property boundary.

Table 2 provides a summary of the number and type of engines used, along with the horsepower and generator outputs for each type of engine.

| Number of<br>Engines | Engine Type           | Engine<br>Horsepower<br>(bhp) | Maximum<br>Generator<br>Output (kW) | Total Maximum<br>Hourly Output<br>(MW) |
|----------------------|-----------------------|-------------------------------|-------------------------------------|--|
| 13                   | Mitsubishi S16R-PTA   | 2,131                         | 1,635                               | 21.255                                 |
| 1                    | Mitsubishi S16R-PTA2  | 2,345                         | 1,825                               | 1.825                                  |
| 10                   | Mitsubishi S16R-PTAA2 | 2,822                         | 2,000                               | 20.000                                 |
| 2                    | Mitsubishi S12R-PTA2  | 1,754                         | 1,350                               | 2.700                                  |
| 3                    | Mitsubishi S12R-PTAA2 | 2,062                         | 1,500                               | 4.500                                  |
| Total                | 1                     | 1                             | 1                                   | 50.280                                 |

**Table 2 – Summary of Emission Sources** 

The compression ignition engines use dual fuels for combustion, with a fuel mixture of at least five percent (5%) no. 2 diesel fuel oil and the rest being natural gas. The engines normally operate with a fuel mixture that is 60 to 75 percent (60-75%) natural gas. Use of natural gas results in reduced emission levels from those normally associated with diesel fueled engines. Ultra-low sulfur (0.003 percent sulfur) diesel fuel is used to also reduce sulfur dioxide and particulate matter emissions.

Each engine is equipped with a selective catalytic reduction (SCR) system to limit  $NO_X$  emissions. Additionally, block heaters are used to maintain the engine temperature at  $110^{\circ}F$  to reduce the start-up time and shorten the time that smoking occurs. The SCR units do not effectively operate until the catalyst temperature reaches approximately  $570^{\circ}F$ , which occurs about 10 to 15 minutes after initial start-up.

Each engine-generator set is contained in an 8.5-foot high, 8-foot wide, by 40-foot long cargo container. The SCR unit sits atop the container and the exhaust gases are discharged to the atmosphere through the top of the SCR. The overall height to the stack top, above ground level, is about 15 feet.

The facility has the following storage tanks:

- Twenty-nine (29) 2,000 gallon double-walled diesel fuel oil storage tanks
- Two (2) 10,5000 gallon aqueous ammonia storage tanks

## 7.0 Insignificant Emission Units and Activities

- 7.1 The permittee proposed numerous insignificant emission units as categorically insignificant based on the requirements outlined in WAC 173-401-532. A list of these units is on file with the Department of Ecology's Eastern Region Office, Air Quality Program in Spokane, Washington.
- 7.2 The following insignificant emission units were proposed by the permittee in the Title V Application materials submitted to Ecology and have been found by Ecology to meet the requirements outlined in WAC 173-401-533 as insignificant on the basis of size or production rate. By identifying each emission unit or process specified below, the permittee has, in effect, placed operational limitations on itself. No specific limits or recordkeeping requirements have been included for these insignificant emission units in the AOP. It is the permittee's responsibility to document that each emission unit or process meets the specified criteria in order for the emission unit or process to continue to qualify as insignificant.
  - 7.2.1 Twenty-nine (29) 2,000 gallon diesel fuel storage tanks located at each generator unit WAC 173-401-533(2)(c), Operation, loading and unloading of VOC storage tanks (including gasoline storage tanks), ten thousand gallons capacity or less, with lids or other appropriate closure, vapor pressure not greater than 80 mm Hg at 21°C.
  - **7.2.2** WAC 173-401-533(2)(i), Welding using not more than one ton per day of welding rod.
  - **7.2.3** WAC 173-401-533(2)(q), Surface coating, using less than two gallons per day.
  - **7.2.4** WAC 173-401-533(2)(s)(iv), Tanks, vessels, and pumping equipment, with lids or other appropriate closure for storage of dispensing of aqueous solutions of inorganic salts, bases and acids excluding: (iv) More than one liquid phase where the top phase is more than one percent VOC's.
  - **7.2.5** WAC 173-401-533(2)(v), Milling and grinding activities, using paste-form compounds with less than one percent VOC's.
  - **7.2.6** WAC 173-401-533(2)(y), Surface coating, aqueous solution or suspension containing less than one percent VOC's.
  - 7.2.7 WAC 173-401-533(2)(z), Cleaning and stripping activities and equipment, using solutions having less than one percent VOC's by weight. On metallic substrates, acid solutions are not considered for listing as insignificant.
  - **7.2.8** WAC 173-401-533(2)(aa), Storage and handling of water based lubricants for metal working where the organic content of the lubricant is less than ten percent.

## 8.0 Comments and Corresponding Responses

8.1 Comments received during the public comment period and EPA review period are on file at Ecology's Eastern Region Office in Spokane, along with Ecology's response to the comments.

## 9.0 Applicable and Inapplicable Requirements Determinations/Explanations

- **9.1** Initial or one-time requirements that have not been included in the AOP as ongoing applicable requirements.
  - 9.1.1 40 CFR 72.7(b)(2), Federal Acid Rain Program New Units Exemption Statement, By December 31<sup>st</sup> of the first year for which the unit is to be exempt from the Acid Rain Program, a statement signed by the designated representative shall be submitted to the permitting authority. The statement shall identify each unit, provide the nameplate capacity of each generator served by each unit, and the fuels burned by each unit, including sulfur content of each fuel.
    - **9.1.1.1** The New Unit Exemption forms for each generator were received at Ecology's Eastern Regional Office on February 24, 2003.
  - 9.1.2 <u>Administrative Order No. 1580, Condition 2.4,</u> The permittee will not appeal the settlement (Order No. 1580), Notice of Penalty No. 1190 dated May 27, 2004 or any Notice of Disposition upon Application for Relief dated July 1, 2004.
    - 9.1.2.1 Since appeal of Orders issued by Ecology can only occur during the first thirty (30) days following receipt of the Order, the effect of this condition expires with the expiration of this time period following each of the referenced Orders. The latest of these dates (September 6, 2004) has passed.
  - Administrative Order No. 1580, Condition 2.5, The permittee shall empty all fuel tanks and refill with ultra-low sulfur (less than 30 ppm) diesel fuel before September 1, 2004. Documentation establishing that all fuel tanks have been emptied and refilled with ultra-low sulfur diesel fuel will be provided to the AQP by within 30 days of completion of the refilling process.
    - **9.1.3.1** Documentation that each tank had been emptied was received by Ecology's Eastern Regional Office on August 30, 2004. Documentation that each tank was refueled with ultra-low sulfur diesel fuel was received October 8, 2004.
  - **9.1.4** Administrative Order No. 1580, Condition 2.10, Within thirty (30) days of the date of the Order (July 29, 2004), the permittee shall make a payment of \$2,500 to the Air Pollution Control Account.
    - **9.1.4.1** Ecology's Eastern Regional Office received notification from the Ecology Fiscal Office on August 25, 2004, stating that payment had been received August 24, 2004.
- 9.2 The following NOC and Administrative Order requirements clarified miscellaneous issues or included explanatory statements with regard to the applicable emission unit and were not approval conditions that require any action on the part of the permittee. These requirements therefore have not been included in the AOP as ongoing applicable requirements.
  - 9.2.1 Order No. 03AQER-5296 Approval Condition 1, Administrative Order No. 01AQER-2985.

- 9.2.1.1 This approval condition states that Notice of Construction Order No. 03AQER-5296 supercedes Administrative Order No. 01AQER-2985. The Administrative Order was issued on June 19, 2001 and permitted temporary operation of the bi-fuel electric generators.
- 9.2.2 Order No. 03AQER-5296 Approval Condition 3.4, Startup exemption from emission limitations.
  - **9.2.2.1** This approval condition states that the first ten minutes of operation of the electrical generating units is not subject to the emission limitations imposed by Order No. 03AQER-5296. This approval condition does not impose any requirements upon the permittee.
- 9.2.3 Administrative Order No. 1580 Condition 2.1.
  - **9.2.3.1** This approval condition states that Ecology and the permittee agree that a main purpose of the Federal Acid Rain Program is to limit SO<sub>2</sub> emissions from power generating plants. This condition does not impose any requirements upon the permittee.
- **9.2.4** Administrative Order No. 1580 Condition 2.2.
  - 9.2.4.1 This approval condition states that Ecology and the permittee agree that the facility has been largely non-operational since it's inception, and SO<sub>2</sub> emissions have been negligible. This condition does not impose any requirements upon the permittee.
- **9.2.5** Administrative Order No. 1580 Condition 2.3.
  - 9.2.5.1 This approval condition states that Ecology and the permittee agree that the annual average sulfur content of the fuel actually burned at the facility prior to December 16, 2003 cannot be determined. This condition does not impose any requirements upon the permittee.
- **9.2.6** Administrative Order No. 1580 Condition 2.8.
  - **9.2.6.1** This approval condition states that Ecology determines that the *loss of exemption* provisions of 40 CFR 72.7 have not been triggered, and that accordingly, the June 29, 2004 request for Acid Rain Program applications is withdrawn. This condition does not impose any requirements upon the permittee.
- **9.2.7** Administrative Order No. 1580 Condition 2.9.
  - **9.2.7.1** This approval condition states that Ecology will not pursue any further enforcement action with respect to Notice of Violation No. 03AQER-5911 or Notice of Penalty No. 1190. This condition does not impose any requirements upon the permittee.
- **9.3** The following requirements were listed as applicable by the source, but have been found to be inapplicable by Ecology.
  - 9.3.1 WAC 173-400-091 Voluntary Limits on Emissions This section of the WAC does not contain any requirements that require the source to take action of any kind.

| 9.3.2  | WAC 173-400-171     | <u>Public Involvement</u> – This section of the WAC outlines the public involvement processes that govern the actions of the permitting authority.   |
|--------|---------------------|--|
| 9.3.3  | WAC 173-400-180     | <u>Variance</u> – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon request for a variance by the permittee.   |
| 9.3.4  | WAC 173-400-230     | Regulatory Actions – This section of the WAC does not contain any requirements that require the source to take action of any kind.   |
| 9.3.5  | WAC 173-400-240     | <u>Criminal Penalties</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |
| 9.3.6  | WAC 173-400-250     | Appeals – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |
| 9.3.7  | chapter 173-435 WAC | Emergency Episode Plans – The permittee is not currently required to take any action under this regulation.  |
| 9.3.8  | WAC 173-400-100     | <u>Source Registration Program</u> – AOP sources are exempt from registration (WAC 173-400-101(7)).  |
| 9.3.9  | WAC 173-400-180     | <u>Variance</u> – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon request for a variance by the permittee.   |
| 9.3.10 | WAC 173-400-230     | <u>Regulatory Actions</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |
| 9.3.11 | WAC 173-400-240     | <u>Criminal Penalties</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |
| 9.3.12 | WAC 173-400-250     | Appeals – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |
| 9.3.13 | Chapter 173-401 WAC | Operating Permit Regulation – The regulations included in Chapter 173-401 WAC are the guidelines that apply to Washington State's Operating Permit Program and do not include specific requirements that apply to the source. This is can be a source of confusion because Operating Permits include requirements that are authorized by Chapter 173-401 WAC. However, these requirements technically do not apply to the source until they are included in an Operating Permit. |
| 9.3.14 | chapter 173-435 WAC | Emergency Episode Plans – The permittee is not currently required to take any action under this regulation.  |

9.4 The permittee included in their application a long list of requirements for which they requested Ecology to determine inapplicability and grant the permit shield to the Moses Lake facility. Except for the requirements listed in section 4 of the AOP, Ecology has not included any of the other requirements in the permit either as applicable or inapplicable. The intent of the permit shield is to address situations where there is a question of applicability. The requirements in section 4 of the AOP are good examples of requirements that reasonably might apply and for which an inapplicability determination is both useful and appropriate to document for the public record. Other requirements listed in the application either don't meet the definition of applicable requirement because they are requirements on Ecology, EPA, or a local regulatory agency rather than on the source or because they are obviously not relevant to the operations of a bi-fuel internal combustion engine electricity generation facility. Including this long list in the permit as inapplicable would serve no purpose and could obfuscate the determination of inapplicability for the relevant standards by making it difficult for the public, EPA, and even the permittee to pick out and carefully evaluate the few standards which could truly be in question. Instead, each requirement has been included below, with a brief explanation of it's inapplicability to the permittee.

| 9.4.1 | 40 CFR 50              | National Primary and Secondary Ambient Air Quality Standards – This regulation does not include requirements which apply directly to the permittee.  |
|-------|------------------------|--|
| 9.4.2 | 40 CFR 51              | Requirements for Preparation, Adoption, and Submittal of Implementation Plans – This regulation inherently does not apply to the permittee.  |
| 9.4.3 | 40 CFR 52 (except §21) | Approval and Promulgation of Implementation Plans (Continued) – This regulation inherently does not apply to the permittee.  |
| 9.4.4 | 40 CFR 53              | Ambient Air Monitoring Reference and Equivalent  Methods – This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.5 | 40 CFR 54              | <u>Prior Notice of Citizen Suits</u> – The purpose of this part is to prescribe procedures governing the giving of notices as a prerequisite to the commencement of such actions (citizen suits under the CAA). This regulation does not include requirements which apply directly to the permittee. |
| 9.4.6 | 40 CFR 55              | Outer Continental Shelf Air Regulations – The permittee is not an OCS source, and is therefore not subject to these regulations.   |
| 9.4.7 | 40 CFR 56              | Regional Consistency – These regulations govern methods employed to achieve fairness and uniformity on the part of EPA and do not require any action on the part of the source.  |
| 9.4.8 | 40 CFR 57              | <u>Primary Nonferrous Smelter Orders</u> – The permittee does not operate this type of facility.   |
| 9.4.9 | 40 CFR 58              | Ambient Air Quality Surveillance – This regulation does not include requirements which apply directly to the   |

permittee.

| 9.4.10 | 40 CFR 59 | Reserved   |
|--------|-----------|--|
| 9.4.11 | 40 CFR 61 | Emission Standards for Sources Emitting Hazardous Air Pollutants – The source does not emit significant amounts of any hazardous air pollutant.  |
| 9.4.12 | 40 CFR 62 | Approval and Promulgation of State Plans for Designated Facilities and Pollutants – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.13 | 40 CFR 63 | Emission Standards for Sources Emitting Hazardous Air Pollutants – The source does not emit significant amounts of any hazardous air pollutant.  |
| 9.4.14 | 40 CFR 65 | <u>Consolidated Federal Air Rule</u> – This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.15 | 40 CFR 66 | Assessment and Collection of Noncompliance Penalties by<br>EPA – This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.16 | 40 CFR 67 | EPA Approval of State Noncompliance Penalty Program – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.17 | 40 CFR 69 | Special Exemptions from Requirements of the CAA – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.18 | 40 CFR 70 | State Operating Permit Regulation – These regulations are the guidelines that apply to Washington State's Operating Permit Program and do not include specific requirements that apply to the source. This is can be a source of confusion because Operating Permits include requirements that are authorized by Chapter 173-401 WAC. However, these requirements technically do not apply to the source until they are included in an Operating Permit. |
| 9.4.19 | 40 CFR 71 | <u>Federal Operating Permits Program</u> – This rule applies to the state implementation of the operating permit programs. This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.20 | 40 CFR 73 | <u>Sulfur Dioxide Allowance System</u> – This facility has qualified for the new units exemption as outlined in 40 CFR 72.7, and therefore is not subject to this requirement.   |
| 9.4.21 | 40 CFR 74 | Reserved   |
| 9.4.22 | 40 CFR 75 | <u>Continuous Emission Monitoring</u> – This facility has qualified for the new units exemption as outlined in 40 CFR 72.7, and therefore is not subject to this requirement.  |
| 9.4.23 | 40 CFR 76 | Acid Rain Nitrogen Oxides Emission Reduction Program – This facility has qualified for the new units exemption as  |

|        |           | outlined in 40 CFR 72.7, and therefore is not subject to this requirement.   |
|--------|-----------|--|
| 9.4.24 | 40 CFR 77 | Excess Emissions – This facility has qualified for the new units exemption as outlined in 40 CFR 72.7, and therefore is not subject to this requirement.   |
| 9.4.25 | 40 CFR 78 | <u>Appeal Procedures for Acid Rain Program</u> – This facility has qualified for the new units exemption as outlined in 40 CFR 72.7, and therefore is not subject to this requirement.   |
| 9.4.26 | 40 CFR 79 | <u>Registration of Fuels and Fuel Additives</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.27 | 40 CFR 80 | <u>Regulation of Fuels and Fuel Additives</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.28 | 40 CFR 81 | <u>Designation of Areas for Air Quality Planning Purposes</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.29 | 40 CFR 82 | <u>Protection of Stratospheric Ozone</u> – The majority of the requirements included in this part do not apply to the permittee. However, subparts E (Labeling of Products using Ozone Depleting Substances) and F (Recycling and Emissions Reduction) apply generally nationwide. |
| 9.4.30 | 40 CFR 83 | Reserved   |
| 9.4.31 | 40 CFR 84 | Reserved   |
| 9.4.32 | 40 CFR 85 | <u>Control of Air Pollution from Mobile Sources</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.33 | 40 CFR 86 | <u>Control of Emissions from New and In-Use Highway</u> <u>Vehicles and Engines</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.34 | 40 CFR 87 | Control of Air Pollution from Aircraft and Aircraft Engines  – This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.35 | 40 CFR 88 | <u>Clean Fuel Vehicles</u> – This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.36 | 40 CFR 89 | <u>Control of Emissions from New and In-use Non-road</u><br><u>Engines</u> – This regulation does not include requirements<br>which apply directly to the permittee.   |
| 9.4.37 | 40 CFR 90 | Control of Emissions from Nonroad Spark-Ignition Engines  – This regulation does not include requirements which apply directly to the permittee.   |

| 9.4.38 | 40 CFR 91             | Control of Emissions from Marine Spark-Ignition Engines  – This regulation does not include requirements which apply directly to the permittee.   |
|--------|-----------------------|---|
| 9.4.39 | 40 CFR 92             | Control of Air Pollution from Locomotives and Locomotive Engines – This regulation does not include requirements which apply directly to the permittee.                                       |
| 9.4.40 | 40 CFR 93             | <u>Determining Conformity of Federal Actions to State or</u><br><u>Federal Implementation Plans</u> – This regulation does not<br>include requirements which apply directly to the permittee. |
| 9.4.41 | 40 CFR 94             | Control of Emissions from Marine Compression-Ignition Engines – This regulation does not include requirements which apply directly to the permittee.  |
| 9.4.42 | 40 CFR 95             | <u>Mandatory Patent Licenses</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.43 | 40 CFR 96             | NO <sub>X</sub> Budget Trading Program for State Implementation<br>Plans – This regulation does not include requirements<br>which apply directly to the permittee.                            |
| 9.4.44 | 40 CFR 97             | <u>Federal NO<sub>X</sub> Budget Trading Program</u> – This regulation does not include requirements which apply directly to the permittee.   |
| 9.4.45 | WAC 173-400-010       | <u>Policy and Purpose</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.   |
| 9.4.46 | WAC 173-400-020       | Applicability – This section of the WAC does not contain any requirements that require the source to take action of any kind.   |
| 9.4.47 | WAC 173-400-030       | <u>Definitions</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |
| 9.4.48 | WAC 173-400-040(3)(b) | RACT for emissions units identified as significant contributors to non attainment status of the region – Source is not currently located in a nonattainment area.                             |
| 9.4.49 | WAC 173-400-070       | Emission standards for certain source categories – Facility does not operate sources in these specific categories.  |
| 9.4.50 | WAC 173-400-075       | Emission Standards for Sources Emitting Hazardous Air Pollutants – The source does not emit significant amounts of any hazardous air pollutant.   |
| 9.4.51 | WAC 173-400-081       | <u>Startup and Shutdown</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.   |
| 9.4.52 | WAC 173-400-091       | <u>Voluntary Limits on Emissions</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.  |

| 9.4.53 | WAC 173-400-099    | Registration Program – AOP sources are exempt from registration per WAC 173-400-101(7). This exemption would fail should the source's AOP status change.   |
|--------|--------------------|--|
| 9.4.54 | WAC 173-400-101    | Registration Issuance – AOP sources are exempt from registration per WAC 173-400-101(7).   |
| 9.4.55 | WAC 173-400-102    | Scope of Registration and Reporting Requirements – AOP sources are exempt from registration per WAC 173-400-101(7).  |
| 9.4.56 | WAC 173-400-103    | Emission Estimates – AOP sources are exempt from registration per WAC 173-400-101(7).  |
| 9.4.57 | WAC 173-400-104    | Registration Fees – AOP sources are exempt from registration per WAC 173-400-101(7).   |
| 9.4.58 | WAC 173-400-105(3) | <u>Investigation of Conditions</u> – While this regulation does have the potential to directly effect the permittee, it does not include requirements which require action on the part of the permittee.                         |
| 9.4.59 | WAC 173-400-105(5) | <u>Records, Monitoring, and Reporting</u> – The permittee does not operate an emission source in the categories to which this section applies.   |
| 9.4.60 | WAC 173-400-105(6) | <u>Changes in Raw Materials or Fuels for Sources Not Subject to Requirements of the Operating Permit Program</u> – The permittee is subject to requirements of the Operating Permit Program.                                     |
| 9.4.61 | WAC 173-400-112    | Requirements for new sources in nonattainment areas – Source is not currently located in a nonattainment area.   |
| 9.4.62 | WAC 173-400-115    | <u>Standards of Performance for New Sources</u> – This regulation does not include any ongoing specific requirements for the permittee.  |
| 9.4.63 | WAC 173-400-120    | <u>Bubble rules</u> – Source is not currently utilizing the option provided by these rules. This requirement will become applicable upon the permittee's request to utilize the provisions provided by bubble rules.             |
| 9.4.64 | WAC 173-400-131    | <u>Issuance of emission reduction credits</u> – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon the permittee's request for emission reduction credit. |
| 9.4.65 | WAC 173-400-136    | <u>Use of emission reduction credits</u> – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon the permittee's request for emission reduction credit.      |
| 9.4.66 | WAC 173-400-151    | BART for sources Impacting Class I Areas – The facility does not have the potential to emit 250 tons/year of any regulated air pollutant.  |

| 9.4.67 | WAC 173-400-161     | <u>Compliance Schedules</u> – This section of the WAC includes requirements that apply to the process governing the issuance of compliance schedules.              |
|--------|---------------------|--|
| 9.4.68 | WAC 173-400-190     | Requirements for nonattainment areas – Source is not located in a nonattainment area.  |
| 9.4.69 | WAC 173-400-210     | <u>Emission Requirements of Prior Jurisdictions</u> – No emission requirements of prior jurisdictions apply to the permittee.                                      |
| 9.4.70 | WAC 173-400-220     | Ecology Board Member Salary Derivation Requirements – This regulation inherently does not apply to this source.  |
| 9.4.71 | WAC 173-400-260     | Ecology Board Member Conflict of Interest Requirements  - This regulation inherently does not apply to this source.  |
| 9.4.72 | chapter 173-405 WAC | <u>Kraft Pulping mills</u> – The permittee is not in this source category.   |
| 9.4.73 | chapter 173-410 WAC | <u>Sulfite Pulping mills</u> – The permittee is not in this source category.   |
| 9.4.74 | chapter 173-415 WAC | <u>Primary Aluminum plants</u> – The permittee is not in this source category.   |
| 9.4.75 | chapter 173-420 WAC | <u>Conformity of Transportation Plans with SIP</u> – This regulation inherently does not apply to this source.   |
| 9.4.76 | chapter 173-421 WAC | <u>Motor Vehicle Emission Control Systems</u> – This regulation inherently does not apply to this source.  |
| 9.4.77 | chapter 173-422 WAC | <u>Motor Vehicle Emission Inspection</u> – This regulation inherently does not apply to this source.   |
| 9.4.78 | chapter 173-430 WAC | <u>Agricultural Burning</u> – The permittee does not practice agriculture on the facility site.  |
| 9.4.79 | chapter 173-433 WAC | <u>Solid Fuel Burning Devices</u> – The permittee does not operate emission units which burn solid fuel.   |
| 9.4.80 | chapter 173-434 WAC | <u>Solid Waste Incineration</u> – The permittee is not in this source category.  |
| 9.4.81 | chapter 173-450 WAC | <u>Financial Aid to authorities</u> – This regulation inherently does not apply to this source.  |
| 9.4.82 | chapter 173-475 WAC | Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide - The permittee is not currently required to take any action under this regulation. |
| 9.4.83 | chapter 173-474 WAC | Ambient Air Quality Standards for Sulfur Oxides - The permittee is not currently required to take any action under this regulation.                                |
| 9.4.84 | chapter 173-470 WAC | <u>Ambient Air Quality Standards for Particulate Matter</u> - The permittee is not currently required to take any action under this regulation.                    |

| 9.4.85 | chapter 173-480 WAC | Ambient Air Quality Standards and Emission Limits for Radionuclides - The permittee is not currently required to take any action under this regulation.  |
|--------|---------------------|--|
| 9.4.86 | chapter 173-481 WAC | Ambient Air Quality and Environmental Standards for Fluorides - The permittee is not currently required to take any action under this regulation.  |
| 9.4.87 | chapter 173-490 WAC | Emission Standards and Controls for Sources Emitting VOC's - The permittee is not located in an ozone nonattainment area or included in the WAC 173-490-030 listing.   |
| 9.4.88 | chapter 173-491 WAC | Emissions Standards and Controls for sources emitting gasoline vapors – The permittee does not operate any gasoline marketing operations.  |
| 9.4.89 | chapter 173-492 WAC | Motor fuel specifications for oxygenated gasoline – This regulation inherently does not apply to the permittee.  |
| 9.4.90 | chapter 173-495 WAC | <u>Weather Control</u> – The permittee does not operate any weather controlling equipment.   |
| 9.4.91 | chapter 246-247 WAC | <u>DOH: Radioactive Air Emissions</u> - The permittee is not currently required to take any action under this regulation.  |
| 9.4.92 | chapter 463-39 WAC  | Energy Facility Site Evaluation Council (EFSEC): General and Operating Permit Regulation for Air Pollution Sources  – The regulations included under this section of the WAC apply only to those facilities under the jurisdiction of the EFSEC. The permittee is not currently under this jurisdiction. |
|        |                     | -4   |

**9.5** The following requirements were listed as inapplicable by the source, but have been found to be applicable by Ecology.

| 9.5.1 | WAC 173-400-050 | Emission Standards for Combustion and Incineration Units       |
|-------|-----------------|--|
|       |                 | - This section of the WAC includes some ongoing                |
|       |                 | requirements that apply to the emission units at the facility. |
|       |                 | See Condition 2.4 of the AOP                                   |

9.6 The following requirements were listed as applicable to the source in the AOP application, but have been found to not exist by Ecology. These regulations thus do not contain any requirements that apply to the source and have therefore not been included in the AOP as ongoing applicable requirements.

| 9.6.1 | WAC 173-402-010 | "Civil Sanctions under Washington Clean Air Act, Prior   |
|-------|-----------------|--|
|       |                 | Regulations" – Chapter 173-402 WAC does not exist.   |
| 9.6.2 | WAC 173-402-020 | "Civil Sanctions under Washington Clean Air Act,<br>Subsequent Regulations" – Chapter 173-402 WAC does |
|       |                 | not exist.   |

**Monitoring, Recordkeeping, and Reporting Requirement (MRRR) Sufficiency Explanations** – The following section provides brief discussions regarding the reasoning behind the MRRR's included as

part of the AOP. The criterion is that each MRRR must be sufficient to assure compliance with the associated condition, emission standard or work practice.

- MRRR 1M This monitoring is used for conditions that require the source to maintain a certain status quo (e.g., O&M manual accessible to employees in operation of the equipment; maintaining replacement parts for routine repairs to monitoring equipment). To assure compliance with these provisions, the permittee is simply required to check actual operations to ensure that there has been no change in the status quo, and to review appropriate documents to ensure that actual operations are being conducted in a manner consistent with these documents.
- 10.2 MRRR 2M This MRRR was designed to provide sufficient response to complaints regarding facility emissions and odors affecting the landowners neighboring or in the affected vicinity of the facility. Timeframes were chosen to provide the permittee with adequate time to respond appropriately as well as ensuring that complaints not go unnoticed.
- 10.3 MRRR 3M The monitoring has been designed to require periodic monthly visible emission testing and walk-around surveys as the most simple and direct method to determine the presence of excess emissions. These surveys, in conjunction with a good faith effort on the part of the permittee to operate in accordance with the conditions of the AOP, are considered sufficient monitoring.
- 10.4 MRRR 4M The monitoring as specified has been designed based on the condition that all associated equipment is maintained in proper working condition. Using emission factors in conjunction with operational parameters is a feasible method of estimating emissions from an emission unit for which performance testing has been performed in the past.
- 10.5 MRRR 5M This monitoring has been specified to rely on periodic source testing in order to gain a reasonable assurance of compliance with the various pollutant limits that apply to the units. Source testing is the most reliable method for determining emissions, and due to the size of the emission units and the requirements that apply, testing is deemed reasonable.
- **10.6** MRRR **6M** This MRRR establishes the minimum monitoring, recordkeeping and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the diesel electric generators.
- **10.7** MRRR 7M This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the O&M manual for the units.
- 10.8 MRRR 8M This MRRR specifies actions specifically required by 40 CFR 68, and includes additional monitoring, recordkeeping, or reporting as necessary to provide reasonable assurance of compliance with the requirements of 40 CFR 68.

## 11.0 Clarifications and Interpretations

- 11.1 <u>Section 1 Standard Conditions</u> For permit conditions required by Washington State regulations that have been included in the SIP, two dates are given. The first date is the date for the regulation that was adopted into the SIP. The second date is for the most up-to-date version of the regulation. State-only enforceable permit conditions are identified with the symbol (S).
- 11.2 <u>Federal Acid Rain Program, 40 CFR Part 72</u> As defined in 40 CFR 72.7(a), the permittee qualifies for the new units exemption from the federal acid rain program. The exemption depends on each utility unit meeting the following criteria; the unit serves a generator with total nameplate capacity of 25 MWe or less, and the unit burns gaseous fuel with an annual average sulfur content of 0.05% or less by weight. Each of the diesel electrical generating units at the

Moses Lake facility serves its own generator, each of which has a total nameplate capacity of 1.6 MWe. The only fuels permitted to be burned at the facility are natural gas and ultra-low sulfur No. 2 distillate fuel oil with sulfur content of 0.003% (30 ppm) or less by weight.

40 CFR 72.7(f)(2), and §(f)(3)(ii) provide further clarification of the applicability of the acid rain program. Section (f)(2) states that "For any period for which a unit is exempt under this section, the unit is not an affected unit under the Acid Rain Program and parts 70 and 71 of this chapter and is not eligible to be an opt-in source under part 74 of this chapter. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under parts 70 and 71 of this chapter." Additionally, section (f)(3)(ii) states "The owners and operators bear the burden of proof that the requirements of paragraph (a) of this section are met."

On February 24, 2003, Ecology received New Unit Exemption forms from the permittee for each unit located at the site near Moses Lake. Each application contained certification that the operation of the units would meet the requirements necessary to qualify for the new units exemption as outlined in 40 CFR 72.7. Facility inspections that took place November 6<sup>th</sup> and 18<sup>th</sup>, 2003 identified fuel delivery records indicating that high sulfur fuel had been delivered to the facility. Ecology notified the permittee of these findings in a letter dated December 2, 2003, and a Notice of Violation was issued December 16, 2003. Following issuance of the NOV, the enforcement process continued with correspondence between Ecology and the permittee, culminating with the issuance of Ecology Administrative Order No. 1580, a settlement agreement, on July 29, 2004. As part of the settlement agreement, it was agreed that the new units exemption under the federal acid rain program still applied to the diesel electric generating units at the facility, and that the units would be operated solely on ultra-low sulfur diesel fuel and natural gas from that point forward.

- 11.3 <u>Chapter 173-425 WAC, Open Burning</u> The requirements restricting open burning in the State of Washington apply to the source, and therefore Chapter 173-425 has been included as an applicable requirement under Section 2.1 Facility Wide Requirements.
- 11.4 Condition 2.1.1 of AOP, Visible Emissions WAC 173-400-040(1), (1)(a), and (1)(b) restrict visible emissions from all sources of air emissions throughout the source to 20% opacity for no longer than three (3) minutes in any one hour. While it is clear from the time periods contained within the regulation that Ecology Method 9A ("Source Test Manual Procedures for Compliance Testing", State of Washington, Department of Ecology, 07/12/90) was the test method intended to be used to verify compliance, this permit has specified EPA Reference Method 9 as the test method utilized as part of MRRR 3M. Ecology has determined that reasonable assurance of compliance with the regulation may be obtained by conducting RM 9 upon observance of visible emissions, as specified within 3M.
- 11.5 <u>Standard Condition 1.13.4, Emission Inventory</u> The requirements contained in this standard condition may be met by the monitoring submittal requirements contained within the AOP provided sufficient emission information is provided. Under the current operating scenario, emissions of fugitive dust are expected to be negligible due to the fact that the site and access roads are paved. This assumption is no longer valid if activities related to the facility begin to produce substantial fugitive dust.
- **11.6** MRRR **5M** of AOP The correction for oxygen content as prescribed by **5M** should be performed according to the method outlined in 40 CFR 60 Appendix A, Reference Method 19.
- 11.7 <u>Annual Compliance Testing</u> The intent of the requirement to conduct annual compliance testing was discussed with Ecology personnel involved in drafting Order No. 03AQER-5296. The intent was clarified to be that testing would be conducted once each calendar year that the

unit was operated for the purpose of commercial electricity generation. The requirement was not meant to require that the annual testing be conducted within twelve (12) months of previous testing. In the year 2003, the facility was not operated for commercial purposes except during source testing. In order to only require testing for those years when commercial operation occurs (the original intent of the condition), the NOC permit has recently been amended to require that for any year that commercial operation occurs, testing be conducted no later than June 1<sup>st</sup> of the following year.

- 11.8 <u>40 CFR 68 Chemical Accident Prevention Provisions</u> The facility is subject to this regulation due to the presence of greater than 20,000 lbs of ammonia solution of >20% concentration. The applicable provisions of this regulation are required to be included in the AOP by WAC 173-401-200(4)(a)(iv), and upon inclusion in a final AOP, become enforceable by Ecology.
- 11.9 40 CFR 68, RMP Audits 40 CFR 68.215(e)(3) and §220 require that Ecology conduct periodic audits of facilities subject to this subpart. Since the original RMP was due to be submitted several years ago (when the ammonia solution was first present on site), Ecology has required the facility to provide a copy of the RMP as submitted to EPA. Ecology plans to conduct the required audits as soon as possible based on staff time availability. Section 220 includes requirements that give Ecology the authority to require modifications to the RMP upon discovery of shortcomings via the audit process. These requirements have not been included in the AOP because they only require action in response to audit findings, and therefore are not ongoing requirements.

## 12.0 Appendix A – Moses Lake Generating Facility Figures and Maps

- **12.1** General Project Location Map
- **12.2** Facility Location and Property Boundary
- **12.3** Facility Site Plan and Equipment Layout